

Increasing A0810496, and NT4N64 CP PII memory

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Reference list

The following are references for this section:

- *Hardware Replacement* (553-3001-520)

Description

The latest release of system software is shipped with new Meridian 1 systems. Introduced with Release 25.40 is a Call Processor Pentium (CP PII) card with 256 MB memory and a 256 MB Memory Upgrade Kit (NT4N19AA) for existing CP PII cards with 128 MB memory. Refer to Table 10 on page 202 for Call Processor cards.

Table 10
Call Processor cards

Part Number	Description
A0810496 Call Processor	Call Processor with 128MB upgraded from 128MB to 256MB with the CP PII Memory Upgrade Kit (NT4N19AA) and faceplate label.
NT4N19AA (A0844698)	Call Processor with 256MB

Operating parameters

Option 81C CP PII systems with 6 or more network groups should upgrade their DRAM to 256 MB memory at the same time they upgrade to Release 25.40. Memory upgrades for existing systems consists of replacing the DIMM on the existing CP PII cards, or installing Release 02 CP PII cards with 256MB on board.

Mixed memory configurations are not supported.

- Option 81C systems configured with the NT4N64AA Rel 01 or NT4N64AA Rel 02 call processor card require a minimum of Release 25.40 software.

Upgrading for Release 25.40 or later software



CAUTION

System upgrade **Loss of Data** one of the following categories:

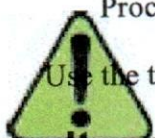
- An Option 81C CP PII with 128 MB memory upgrade to Release 25.40 software using the existing Call Processor card. This upgrade is not recommended for systems with six or more network groups.

Keep a backup copy of the database external to the switch when completing software/hardware upgrades. This is a major hardware upgrade/replacement. With Release 25.40 software, the 256 MB memory Call Processor card

(NT4N64AA Rel 02) is used. Refer to *Hardware Replacement*

Procedure 1 Backup current data

1. Load the Equipment Data Dump Program (LD 43). At the prompt, enter LD 43. Load the program.
2. When "EDD000" appears on the terminal, enter EDD. Begin the data dump.
3. When "DATABASE BACKUP COMPLETE" appears on the terminal, enter. All Option 81C CP PII with six or more network groups upgrading to Release 25.40 or later software using the NT4N64AA Rel 02 Call Processor card or the NT4N19AA Memory Upgrade Kits.



CAUTION

Loss of Data

Use the tasks in this section to complete a software and memory upgrade. If the data dump is not successful, do not continue; contact your technical support group. Correct any data dump problem before you continue.

Perform simultaneous software and memory upgrade

Install software on both Core hard drives. Follow the tasks below in order to complete the installation.

Note: To complete these procedures, the system must be working in redundant mode and connected to a terminal.

Exit the program.

End of Procedure

Back up current data

Before starting the upgrade check that:

- The system is operating in redundant mode. When the system is SPLIT, enter LD 135 and synchronize the memory and drives using the JOIN command.

Reporte Bellsmith
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On the other hand, the system will not be able to handle a minimum of 1000 records per second.

Requirements for the system

The system must be able to handle the following requirements:

- 1. The system must be able to handle a minimum of 1000 records per second.
- 2. The system must be able to handle a minimum of 1000 records per second.
- 3. The system must be able to handle a minimum of 1000 records per second.

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Back up current data

The system must be able to handle a minimum of 1000 records per second. The system must be able to handle a minimum of 1000 records per second. The system must be able to handle a minimum of 1000 records per second.

Update Backup

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Test system redundancy

Procedure 2

Test system redundancy

- 1 Test system redundancy. At the prompt enter:
LD 137
STAT Get the status of the hard disks.
TEST RDUN Test redundancy
DATA RDUN Perform sector level checking on both hard disks
TEST CMDU Perform hard and floppy disk test.
- 2 Load LD 135 and check the status of the CPs, CNIs, and memory.
LD 135
STAT CPU Get the status of both CPs and memory.
STAT CNI Get the status of all configured CNIs.

End of Procedure

Make Core 0 active

Either Core can be upgraded first. The decision to upgrade Core 1 first is for this example only.

Procedure 3

Make Core 0 active

- 1 If Core 1 is active, make Core 0 active. At the prompt enter:
LD 135
STAT CPU Get the status of the CPUs.
SCPU Switch to Core 0.

End of Procedure

Split the Cores

Procedure 4 Split the cores

- 1 From the active side, split the cores. At the prompt enter:

LD 135

SPLIT Enter Split on the active core.

******** Exit program.

The system is now in SPLIT mode.

End of Procedure

Upgrade Core 1

Procedure 5 Upgrade Core 1

- 1 Determine which of the following upgrades the system requires:
 - a Upgrade the software to Release 25.40 using the existing hardware. Continue with the "Install the software on Core/Net" on page 214.
 - b Upgrade the system with the 256 MB memory Call Processor card and Release 25.40 software. Go to step 2.
 - c Upgrade the software to Release 25.40 and replace the DIMM on the existing CP PII card. Go to step 3.
- 2 Remove the call processor card from Core 1 and replace with the NT4N64AA Rel 02 call processor card. Refer to *Hardware Replacement* (553-3001-520) for card replacement. Continue with the "Install the software on Core/Net" on page 214.



CAUTION **Damage to Equipment**

Nortel Networks recommends that only properly trained distributor personnel perform this memory DIMM upgrade. Upgrading memory on CP cards involves some risk of damage to DIMM and the CP card. Personnel performing this upgrade do so at their own risk.

**CAUTION****Service Interruption**

Personnel should have spare CP cards on hand or risk installation delay or system down time. Nortel Networks assumes no responsibility for any damage incurred, installation delays due to board damage, or loss due to damage or system down time.

- 3 Remove the Call Processor card from Core 1 and replace the memory module with the NT4N19AA Memory Upgrade Kit. Follow the steps provided in "Memory upgrade" on page 207.

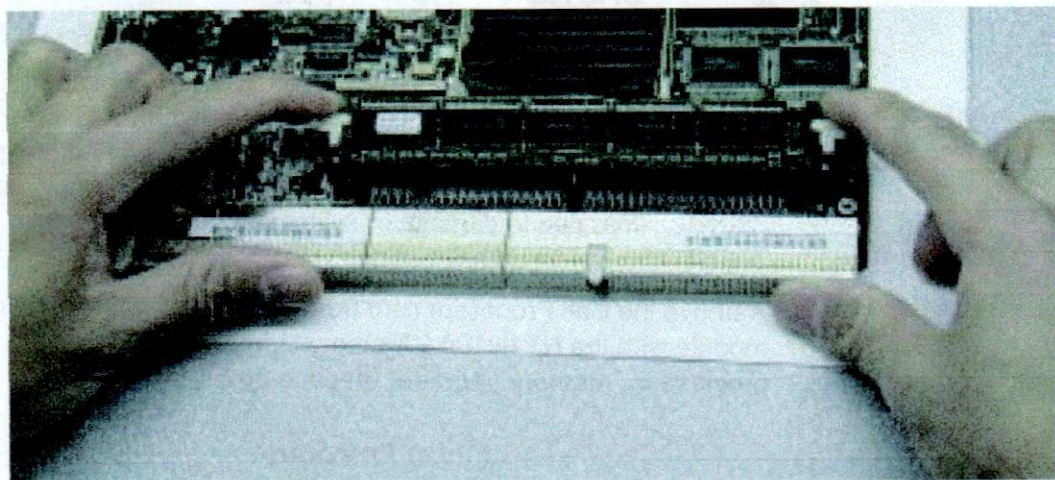
End of Procedure

Memory upgrade

Procedure 6**Upgrade memory**

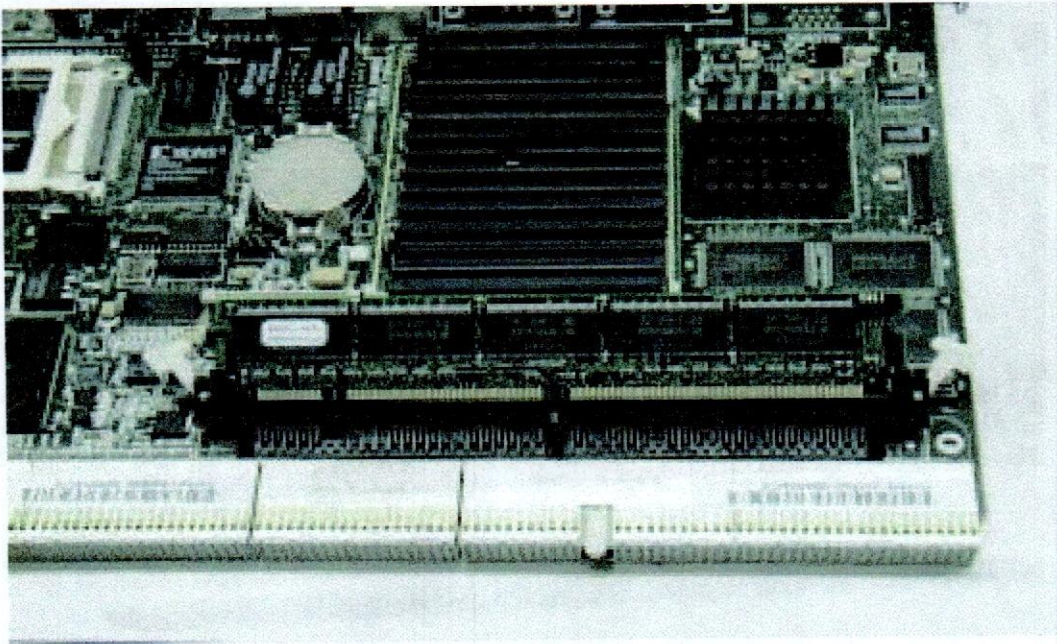
- 1 Remove all cables connected to the faceplate of the standby Call Processor card on Core 1.
- 2 Hot unplug the card and place with the DIMM side-up on a flat, clean surface.
- 3 Hold the latches of the DIMM socket. See Figure 11 on page 208.

Figure 11
Latches



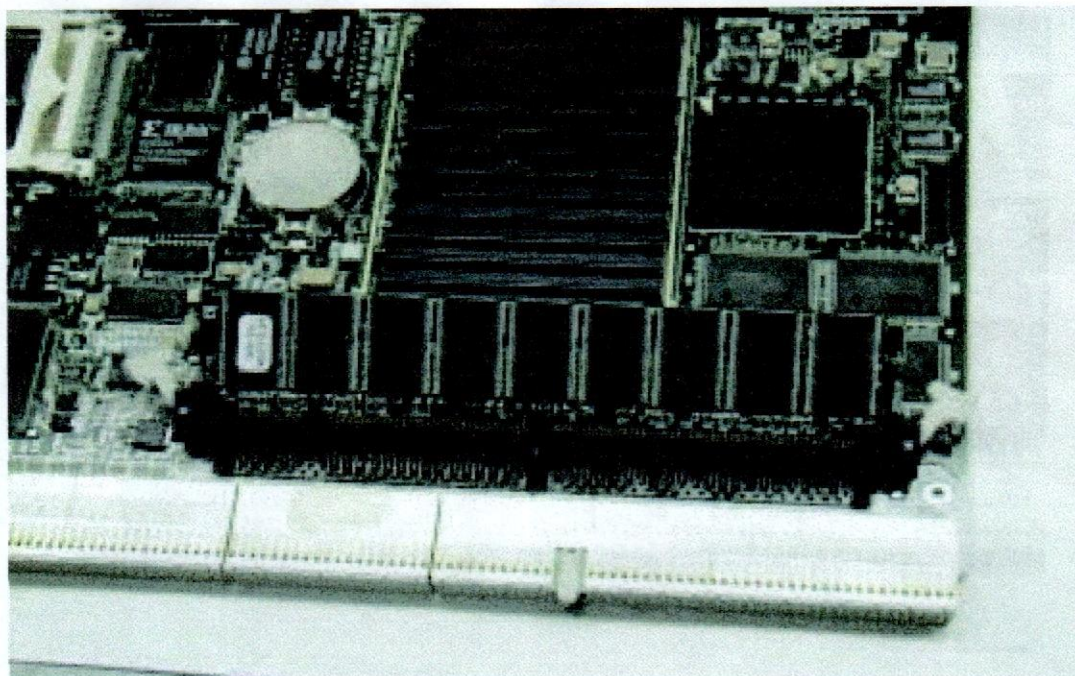
- 4 Press and rotate the latches from inside to outside carefully. See Figure 12 on page 209.

Figure 12
Rotate latches



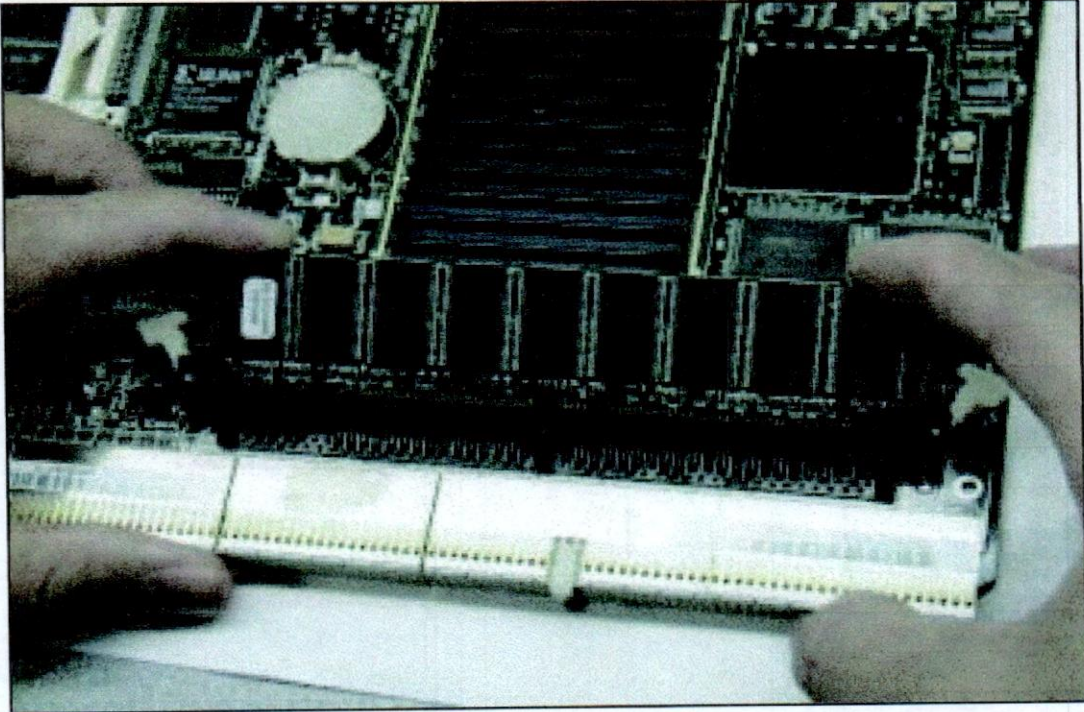
- 5 Remove the 128 MB memory module.
- 6 Keep the latches open and insert the 256MB module into the DIMM socket. Align the two notches on the module with the two keys in the DIMM socket. See Figure 13 on page 210.

Figure 13
Insert 256MB module



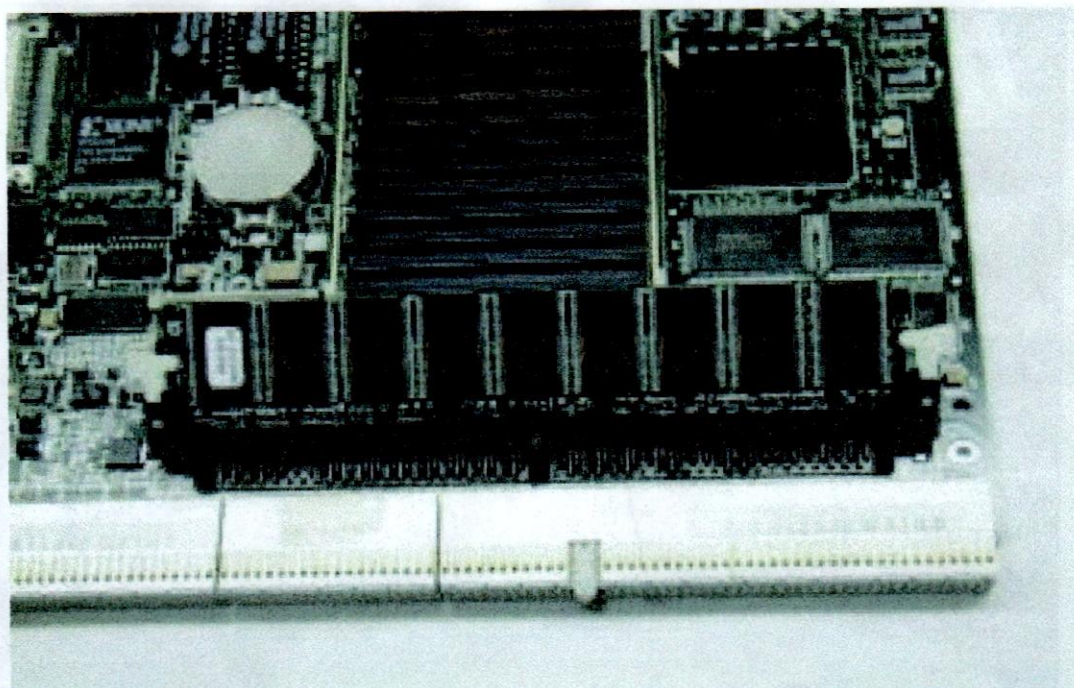
7 Hold the memory module as in Figure 14 on page 211.

Figure 14
Hold memory module



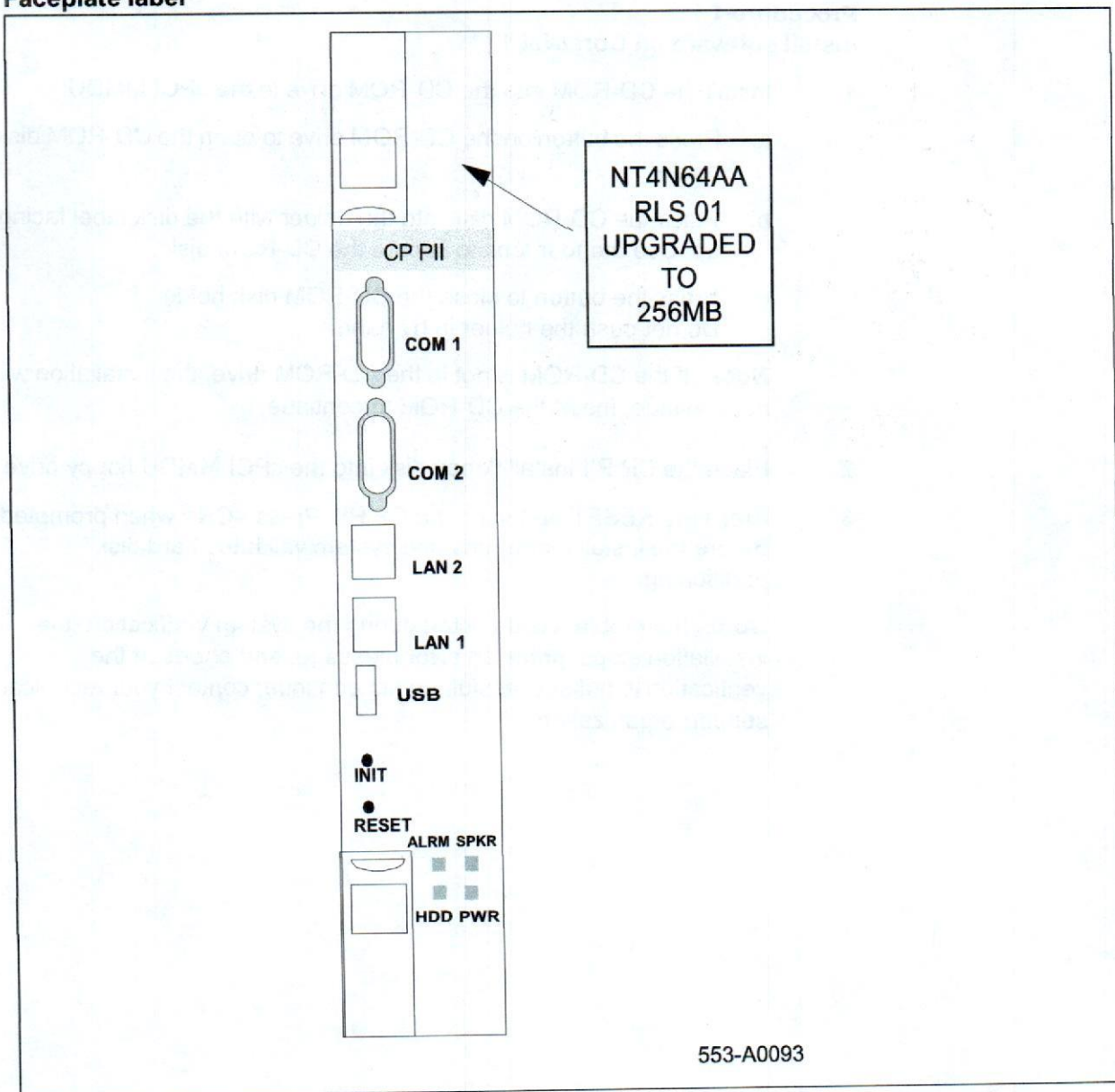
- 8 Push the module into the DIMM socket until it is locked by the latches. See Figure 15 on page 212.

Figure 15
Lock latches



- 9 Put the faceplate label on the faceplate of the card. See Figure 16 on page 213.

Figure 16
Faceplate label



- 10** Return the card to its slot and reconnect all original cables.
Continue with the "Install the software on Core/Net" on page 214.

End of Procedure

Install the software on Core/Net

Procedure 1

Install software on Core/Net 1

- 1 Install the CD-ROM into the CD-ROM drive in the cPCI MMDU:
 - a. Press the button on the CD-ROM drive to open the CD-ROM disk holder.
 - b. Place the CD-ROM disk into the holder with the disk label facing up. Use the four tabs to secure the CD-ROM disk.
 - c. Press the button to close the CD-ROM disk holder.
Do not push the holder in by hand.

Note: If the CD-ROM is not in the CD-ROM drive, the installation will not continue. Insert the CD-ROM to continue.

- 2 Place the CP PII Install floppy disk into the cPCI MMDU floppy drive.
- 3 Press the RESET button on the CP PII. Press <CR> when prompted. Before the install menu runs, the system validates hard disk partitioning.

Note: If a problem is detected during the system verification, the installation stops, prints an error message, and aborts. If the verification is not successful, do not continue; contact your technical support organization.

The screen displays:

```
Nortel Meridian-1 Software/Database/BOOTROM CDROM INSTALL Tool
(Version 28)

=====

                      **

****      **      ****
****      *****  ****
***** Nortel Networks - Meridian 1
****      ****      ****      Install Tool (Version 28)
****      ****      ****
****      *****
****      *****

                      Copyright 1992 - 2001 Nortel Networks

Please press <CR> when ready ...

>OBTAIN and CHECK SYSTEM CONFIGURATION
>Validate hard disk partitions
Do physical checking for hard drive, it will take five to six
minutes.
Testing partition 0
100 percent completed!
Testing partition 1
100 percent completed!
Testing partition 2
100 percent completed!
Disk physical checking is completed!
Validate hard drive partition number and size ...

There are 3 partitions in disk 0:
The size of partition 0 of disk 0 is xx MB
The size of partition 1 of disk 0 is xx MB
The size of partition 2 of disk 0 is xx MB
Disk partitions and sectors checking is completed!
dosFsCheck for PART_C OK!
dosFsCheck for PART_D OK!
dosFsCheck for PART_E OK!
DosFsCheck is completed!
>Copy /f0/disk3311.sys to /u/disk3311.sys -

System Date and Time now is:
Friday 01-05-2001, 15:49:16
```

- 4 Press <CR> on the terminal to start the software installation from the following menu.

```
Nortel Meridian-1 Software/Database/BOOTROM CDRom INSTALL Tool
(Version 28)
```

```
=====
                        M A I N    M E N U
```

```
The Software Installation Tool will install or upgrade
Meridian-1 System Software, Database and the CP-BOOTROM.
```

```
You will be prompted throughout the installation and given the
opportunity to quit at any time.
```

```
Please enter:
```

```
<CR> ->      <u> - To Install menu
              <t> - To Tools menu.
              <q> - Quit
```

```
Enter Choice>
```

- 5 Insert keycode diskette.

```
Nortel Meridian-1 Software/Database/BOOTROM CDRom INSTALL Tool
(Version 28)
```

```
=====
Please insert the diskette with the keycode file into the floppy
drive.
```

```
Please enter:
```

```
<CR> -> <a> - Continue with the keycode validation
              (the keycode diskette is in the floppy drive on
              Core 1).
              <q> - Quit.
```

```
Enter Choice>
```


6 Confirm that the keycode matches the CD ROM release.

The provided keycode authorizes the install of Release 25xx software (all subissues) for machine type 3311 (CPP processor on Option 81C).

Nortel Meridian-1 Software/Database/BOOTROM CDROM INSTALL Tool
(Version 28)

=====

Please confirm that this keycode matches the CDROM Release

Please enter:

<CR> -> <y> - Yes, the keycode matches. Go on to Install Menu.
<n> - No, the keycode does not match. Try another
keycode diskette.

Enter Choice>

- 7 If the Keycode matches the CD ROM release, you are prompted to select an option from the following install menu.

```
Nortel Meridian-1 Software/Database/BOOTROM CDROM INSTALL Tool
(Version 28)

=====
                        I N S T A L L   M E N U
The Software Installation Tool will install or upgrade
Meridian-1 System Software, Database and the CP-BOOTROM.
You will be prompted throughout the installation and given the
opportunity to quit at any time.

Please Enter:
<a>   To install Software, CP-BOOTROM.
<b>   To install Software, Database, CP-BOOTROM
<c>   To install Database only.
<d>   To install CP-BOOTROM only.
<t>   To go to the Tools menu.
<k>   To install Keycode only.
      For feature Expansion, use OVL143.
<p>   To install 3900 set Languages.
<q>   Quit.

Enter Choice>
```

Note: Press <CR> to select option <a>. The default database is not installed; instead, the existing customer database is left on disk, and then converted at the next sysload.

8 Insert the CDROM is in the CDROM drive.

Nortel Meridian-1 Software/Database/BOOTROM CDROM INSTALL Tool
(Version 28)

=====

Please insert the installation CDROM into the drive on Core 1.

The labeled side of the CDROM should be side up in the CDROM tray.

Please enter:

<CR> -> <a> - CDROM is now in the drive. Continue with s/w
 checking.
 <q> - Quit.

Enter Choice>

9 Confirm the software version.

Nortel Meridian-1 Software/Database/BOOTROM CDROM INSTALL Tool
(Version 28)

=====

The installation CDROM contains version Release 25xx__.

Please enter:

<CR> -> <y> - Yes, this is the correct version. Continue.
 <n> - No, this is not the correct version. Try another
 CDROM or keycode disk.

Enter Choice>

10 Review the Installation Status Summary

```

-----
                        INSTALLATION STATUS SUMMARY
-----
+=====+=====+=====+=====+
| Option      | Choice | Status | Comment                |
+=====+=====+=====+=====+
| SW: CD to disk | yes    |        | Install for rel 25xx    |
+-----+-----+-----+-----+
| Database      | no     |        |                          |
+-----+-----+-----+-----+
| CP-BOOTROM    | yes    |        |                          |
+-----+-----+-----+-----+

Please enter:
<CR> -> <Y> - Yes, start Installation.
        <n> - No, stop Installation. Return to the Main Menu.

Enter Choice>

```

11 Confirm the Upgrade.

```

Nortel Meridian-1 Software/Database/BOOTROM CDRom INSTALL Tool
(Version 28)

=====
You selected to upgrade the system from release: 25xx to release:
25xx.

This will erase all old system files.
Database files will NOT be erased. You may continue installing
the software or quit now and leave your system unchanged.

Please enter:
<CR> -> <y> - Continue with Upgrade.
        <q> - Quit.

Enter Choice>

```

Pre-release 3 language groups

- 12** Select a PSDL file to install. The PSDL file contains the loadware for all downloadable cards in the system and loadware for M3900 series

sets.

Select one of the six PSDL files

- <1> Global 10 Languages
- <2> Western Europe 10 Languages
- <3> Eastern Europe 10 Languages
- <4> North America 6 Languages
- <5> Spare Group A
- <6> North America 6 Languages (Duplicate of <4>)

The languages contained in each selection are outlined as follows:

- 1 - English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Japanese Katakana.
- * 2 - English, French, German, Spanish, Swedish, Norwegian, Danish, Finnish, Italian, Brazilian Portuguese.
- * 3 - English, French, German, Dutch, Polish, Czech, Hungarian, Russian, Latvian, Turkish.
- * 4 - English, Spanish, French, Brazilian Portuguese, Japanese Katakana, German.
- * 5 - English, French, German, Spanish, Swedish, Italian, Norwegian, Portuguese, Finnish, Japanese Katakana.
- * 6 - English, Spanish, French, Brazilian Portuguese, Japanese Katakana, German.

Release 3 language groups

- 13** Select a PSDL file to install. The PSDL file contains the loadware for all downloadable cards in the system and loadware for M3900 series

sets.

Select one of the six PSDL files

- <1> Global 10 Languages
- <2> Western Europe 10 Languages
- <3> Eastern Europe 10 Languages
- <4> North America 6 Languages
- <5> Spare Group A
- <6> North America 6 Languages (Duplicate of <4>)

The languages contained in each selection are outlined as follows:

- 1 – Global 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Japanese Katakana.
- 2 – Western Europe 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Danish.
- 3 – Eastern Europe 10 Languages (Release 3) English, French, German, Dutch, Polish, Czech, Hungarian, Russian, Latvian, Turkish.
- 4 – North America six Languages (Release 3) English, French, German, Spanish, Brazilian Portuguese, Japanese Katakana.
- 5 – Spare Group A.
- 6 – Spare Group B.

14 Continue with the installation.

```
Nortel Meridian-1 Software/Database/BOOTROM CDRom INSTALL Tool  
(Version 28)
```

```
=====
```

```
Software release 25xx was installed sucessfully on Core 1.  
All files were copied from CDRom to the hard disk.
```

```
Please press <CR> when ready ...
```


15 Perform the CP-BOOTROM installation.

Nortel Meridian-1 Software/Database/BOOTROM CDROM INSTALL Tool
(Version 28)

=====

You will now perform the CP-BOOTROM installation.

Note: You will be overriding existing CP-BOOTROM on hard
disk. If you quit, Bootrom will be left unchanged

Please enter:

<CR> -> <a> - Continue with CP-BOOTROM install.
<q> - Quit.

Enter Choice>

16 Review the Status Summary.

INSTALLATION STATUS SUMMARY

Option	Choice	Status	Comment
SW: CD to disk	yes	ok	from 2530_ to 2540
Database	no		
CP-BOOTROM	yes	ok	

Please press <CR> when ready ...

17 Enter "q" to leave the installation program.

```
Nortel Meridian-1 Software/Database/BOOTROM CDROM INSTALL Tool
(Version 28)
```

```
=====
                        I N S T A L L   M E N U
```

```
The Software Installation Tool will install or upgrade
Meridian-1 System Software, Database and the CP-BOOTROM.
```

```
You will be prompted throughout the installation and given the
opportunity to quit at any time.
```

```
Please enter:
```

```
<a>      To install Software, CP-BOOTROM.
<b>      To install Software, Database, CP-BOOTROM
<c>      To install Database only.
<d>      To install CP-BOOTROM only.
<t>      To go to the Tools menu.
<k>      To install Keycode only.
          For feature Expansion, use OVL143.
<p>      To install 3900 set Languages.
<q>      Quit.
```

```
Enter Choice>
```

18 Enter "y" to confirm Quit.

```
Nortel Meridian-1 Software/Database/BOOTROM CDROM INSTALL Tool
(Version 28)
```

```
=====
You selected to Quit. Please confirm.
```

```
Please enter:
```

```
<CR> ->  <y> - Yes, Quit.
          <n> - No, DO NOT Quit.
```

```
Enter Choice>
```


- 19 Choose either Reboot or Return to the Main Menu

Note: Remove the Install diskette from the floppy drive(s) before rebooting.

```
Nortel Meridian-1 Software/Database/BOOTROM CDROM INSTALL Tool
(Version 28)
```

```
=====
You selected to Quit the Software Installation Tool.
You may reboot the system or return to the Main Menu.
Before rebooting the system, remove Install diskette from the
floppy drive(s).
```

```
-----
DO NOT REBOOT USING BUTTON!!
-----
```

Please enter:

```
<CR> ->  <a> - Reboot the system.
          <m> - Return to the Main menu.
```

Enter Choice>

- 20 The system automatically performs a sysload and several messages appear on the system terminal. Wait for "DONE" and then the "INI" message to display before you continue.

Database conversion occurs during sysload.

Verify that the following message appears on the system terminal:

```
DATA CONVERSION
```

```
RELEASE 25.XX TO RELEASE 25.XX
```

- 21 Confirm that Release 25.xx software is installed and is working on Core/Net 1:

LD 135	Load the program.
STAT CPU	Display the CPU status.
STAT CNI	Display the cCNI status.
STAT MEM	Display memory status on CPUs.

- 22 Check the software version.

Use LD 22 to print the software issue and release. At the prompt enter:

LD 22

REQ

ISS

Exit the program.

End of Procedure

Transfer call processing from Core/Net 0 to Core/Net 1



CAUTION

Service Interruption

The following procedure to transfer call processing causes service interruptions.

Time your procedure to minimize the effect of any breaks in service.

Procedure 2

Transfer call processing

- 1 From Core/Net 0, the active side, transfer call processing to the upgraded Core/Net 1. At the prompt enter:

LD 135

CUTOVR

Transfer call processing from active core to standby core. This will cause a service interruption.

Call processing is now switched from Core/Net 0 to Core/Net 1.

- 2 Test Call Processing. This includes the following:
- a Check for dial tone.
 - b Make internal, external, and network calls.
 - c Check attendant console activity.
 - d Check DID trunks.
 - e Check any auxiliary processors.

End of Procedure

Upgrade Core/Net 0

Start at "Upgrade Core 1" on page 206 and repeat the procedures for Core/Net 0.

Continue with the following procedures after completing "Check the software version." on page 226.

Enable system redundancy



CAUTION

Service Interruption

The following procedure to transfer call processing causes service interruptions.

Time your procedure to minimize the effect of any breaks in service.

Procedure 3

Transfer call processing

- 1 Transfer call processing from the active core 1 to the standby core 0.
At the prompt enter:

LD 135

CUTOVR

Transfer call processing from active core to standby core. This will cause a service interruption.

Note: The CUTOVR command is necessary to ensure that the second upgraded core is capable of call processing.

- 2 Test Call Processing. This includes, but is not limited to the following:
 - a Check for dial tone.
 - b Make internal, external, and network calls.
 - c Check attendant console activity.
 - d Check DID trunks.
 - e Check any auxiliary processors.

Procedure 4

Enable system redundancy

- 1 From the active CPU, Core/Net 0, enable redundancy. At the prompt enter:

LD 135

JOIN

Synchronize the memory and drives.

End of Procedure

Test Core/Net 1 and Core/Net 0

Procedure 5

Test both cores

From the active CPU, Core/Net 0, perform these tests:

- 1 Perform a redundancy sanity test using the following sequence. At the prompt enter:

LD 135

STAT CNI

Get the status of the cCNI cards.

STAT CPU

Get the status of the CPU and memory.

TEST CNI

Test each cCNI card (core, slot).

STAT SUTL

Get the status of the System Utility (main and transition) cards.

TEST SUTL

Test the System Utility (main and transition) cards.

TEST IPB

Test the Interprocessor Bus

TEST LCD

Test the LCDs.

TEST LED

Test the LEDs.

- 2 Test system redundancy. At the prompt enter:

LD 137

STAT

Get the status of the hard disks.

TEST RDUN

Test redundancy

DATA RDUN

Perform sector level checking on both hard disks

TEST CMDU

Perform hard and floppy disk test.

- 3 Switch to the inactive CPU. At the prompt enter:

LD 135

SCPU

Switch to the inactive CPU, Core/Net 1

- 4 Test Core/Net 1. At the prompt enter:
- LD 135**
- STAT CNI** Get the status of cCNI (both main and transition) cards.
- STAT CPU** Get the status of both Cores and redundancy.
- TEST CNI** Test the cCNI (both main and transition) cards.
- STAT SUTL** Get the status of the System Utility card.
- TEST SUTL** Test System Utility card.
- TEST IPB** Test Interprocessor Bus.
- TEST LCD** Test LCDs.
- TEST LED** Test LEDs
- 5 Clear the display and minor alarms on both Cores. At the prompt enter:
- CDSP** Clear the displays on the Cores.
- CMAJ** Clear all major alarms.
- CMIN ALL** Clear all minor alarms.
- ****** Exit the program.
- 6 If desired, switch back to Core/Net 0. At the prompt enter:
- LD 135**
- SCPU** Switch to the inactive CPU, Core/Net 0

End of Procedure

Perform a data dump

Procedure 6

Perform a data dump

- 1 At the prompt, enter
 LD 43 Load the program
- 2 Insert a floppy disk into the cPCI MMDU to capture the backup.
- 3 When "EDD000" appears on the terminal, enter
 EDD Begin the data dump
- 4 When "DATABASE BACKUP COMPLETE" appears on the terminal,
 enter



CAUTION **Loss of Data**

If the data dump is not successful, do not continue; contact your technical support group. Correct any data dump problems before you continue.

**** Exit the program

The parallel reload procedure is complete.

End of Procedure

Back out of a system software and hardware upgrade

To back out of a CP PII system software and hardware upgrade the following tasks must be completed.

- Determine which core is active.
- Split the cores.
- Revert to the old memory configuration, if required.
- Install the original release of software.

Perform the following procedures in order.

Make Core 0 active

Either Core can be downgraded first. The decision to downgrade Core 1 first is for this example only.

Procedure 7

Make Core 0 active

- 1 If Core 1 is active, make Core 0 active. At the prompt enter:

LD 135

STAT CPU

Get the status of the CPUs.

SCPU

Switch to Core 0.

Split the Cores

Procedure 8

Split the cores

- 1 From the active Core 0, split the cores. At the prompt enter:

LD 135

Load the program.

SPLIT

Enter Split on the active core.

Exit the program.

The system is now in split mode.

End of Procedure

Install the software on Core/Net 1

Procedure 9

Install the original release of software

- 1 Install the CD-ROM into the CD-ROM drive in the cPCI MMDU:
 - a. Press the button on the CD-ROM drive to open the CD-ROM disk holder.
 - b. Place the CD-ROM disk into the holder with the disk label facing up. Use the four tabs to secure the CD-ROM drive.
 - c. Press the button again to close the CD-ROM disk holder.
Do not push the holder in by hand.

Note: If the CD-ROM is not in the CD-ROM drive, the installation will not continue. Insert the CD-ROM to continue.

- 2 Place the Install diskette with the original software release into the cPCI MMDU floppy drive.
- 3 Press the manual RESET button on the CP PII card faceplate. Before the install menu runs, the system validates hard disk partitioning which takes about five minutes.

Note: If a problem is detected during the system verification, the installation stops, prints an error message, and aborts.
If the verification is not successful, do not continue; contact your technical support group.

The screen displays:

Nortel Meridian-1 Software/Database/BOOTROM CDROM INSTALL Tool
(Version xx)

```

=====
                                **
                                ***
          ****      **      ****
          ****      *****
          ****      *****
          ***** Nortel Networks - Meridian 1
          ****      ****      Install Tool (Version xx)
          ****      ****
          ****      ****
          ****      ****
          ****      *****
          ****      *****
          ****      ***      ***

```

Copyright 1992 - 1999 Nortel Networks, Inc.
Please press <CR> when ready ...

```

>OBTAIN and CHECK SYSTEM CONFIGURATION
>Validate hard disk partitions
Do physical checking for hard drive, it will take five to six minutes.
Please wait ...
Testing partition 0
100 percent completed!
Testing partition 1
100 percent completed!
Testing partition 2
100 percent completed!
Disk physical checking is completed!
Validate hard drive partition number and size ...
There are 3 partitions in disk 0:
The size of partition 0 of disk 0 is xx MB
The size of partition 1 of disk 0 is xx MB
The size of partition 2 of disk 0 is xx MB
Disk partitions and sectors checking is completed!
dosFsCheck for PART_C OK!
dosFsCheck for PART_D OK!
dosFsCheck for PART_E OK!
DosFsCheck is completed!
>Copy /f0/disk3311.sys to /u/disk3311.sys -
System Date and Time now is:
Friday 01-05-2001, 15:49:16

```

- 4 Press <CR> on the terminal to start the software installation from the following menu.

```
Nortel Meridian-1 Software/Database/BOOTROM CDROM INSTALL Tool
(Version xx)
```

```
=====
                      M A I N    M E N U
```

```
The Software Installation Tool will install or upgrade
Meridian-1 System Software, Database and the CP-BOOTROM.
```

```
You will be prompted throughout the installation and given the
opportunity to quit at any time.
```

```
Please enter:
```

```
<CR> -> <u> - To Install menu
          <t> - To Tools menu.
          <q> - Quit
```

```
Enter Choice>
```

- 5 Insert keycode diskette.

```
Nortel Meridian-1 Software/Database/BOOTROM CDROM INSTALL Tool
(Version xx)
```

```
=====
Please insert the diskette with the keycode file into the floppy
drive.
```

```
Please enter:
```

```
<CR> -> <a> - Continue with the keycode validation
          (the keycode diskette is in the floppy drive on Core 1).
          <q> - Quit.
```

```
Enter Choice
```


6 Confirm that the keycode matches the CD ROM release.

The provided keycode authorizes the install of Release 25xx__
software for generic 3311 (CPP processor on Option 81C).

Nortel Meridian-1 Software/Database/BOOTROM CDROM INSTALL Tool
(Version xx)

=====

Please confirm that this keycode matches the CDROM Release

Please enter:

<CR> -> <y> - Yes, the keycode matches. Go on to Install Menu.
<n> - No, the keycode does no match. Try another
keycode diskette.

Enter Choice>

- 7 When the screen displays the Install Menu, enter choice "b" to install the database.

Note: The database has to be reinstalled. A database cannot be converted down.

```
Nortel Meridian-1 Software/Database/BOOTROM CDROM INSTALL Tool
(Version xx)
```

```
=====
                        I N S T A L L   M E N U
```

```
The Software Installation Tool will install or upgrade
Meridian-1 System Software, Database and the CP-BOOTROM.
You will be prompted throughout the installation and given the
opportunity to quit at any time.
```

```
Please enter:
```

- <a> To install Software, CP-BOOTROM.
- To install Software, Database, CP-BOOTROM
- <c> To install Database only.
- <d> To install CP-BOOTROM only.
- <t> To go to the Tools menu.
- <k> To install Keycode only.
 For feature Expansion, use OVL143.
- <p> To install 3900 set Languages.
- <q> Quit.

```
Enter Choice>
```


8 Insert the CDROM into the CDROM drive.

Nortel Meridian-1 Software/Database/BOOTROM CDROM INSTALL Tool
(Version xx)

Install utility will install Release 25xx s/w for software generic 3311 (CPP processor on Option 81C) on your system. Please insert the installation CDROM into the drive on Core 1.

The labeled side of the CDROM should be side up in the CDROM tray.

Please enter:

```
<CR> ->    <a> - CDROM is now in the drive.  
              Continue with installation.  
            <q> - Quit.
```

```
|Enter Choice>
```

9 Review the Installation Status Summary.

INSTALLATION STATUS SUMMARY

Option	Choice	Status	Comment
SW: CD to disk	yes		Install for rel 25xx
Database	yes		
CP-BOOTROM	yes		

Please enter:

```
<CR> -> <Y> - Yes, start Installation.  
        <n> - No, stop Installation. Return to the Main Menu.
```

Enter Choice>

10 Confirm the Upgrade.

```
Nortel Meridian-1 Software/Database/BOOTROM CDROM INSTALL Tool
(Version xx)

=====
You selected to upgrade the system from release: 25xx to release
25xx.
This will erase all old system files.
Database files will not be erased. You may continue installing
the software or quit now and leave your system unchanged.

Please enter:
<CR> ->        <a> - Continue with Upgrade
                 <q> - Quit.

Enter Choice>
```

Pre-release 3 language groups

- 11 Select a PSDL file to install. The PSDL file contains the loadware for all downloadable cards in the system and loadware for M3900 series sets.**

Select one of the six PSDL files

- <1> Global 10 Languages
- <2> Western Europe 10 Languages
- <3> Eastern Europe 10 Languages
- <4> North America 6 Languages
- <5> Spare Group A
- <6> North America 6 Languages (Duplicate of <4>)

The languages contained in each selection are outlined as follows:

- 1 - English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Japanese Katakana.
- * 2 - English, French, German, Spanish, Swedish, Norwegian, Danish, Finnish, Italian, Brazilian Portuguese.
- * 3 - English, French, German, Dutch, Polish, Czech, -

13 Continue with the installation.

```
Nortel Meridian-1 Software/Database/BOOTROM CDROM INSTALL Tool  
(Version xx)
```

```
=====
```

```
Software release 25xx was installed successfully on Core 1.  
All files were copied from CDROM to the hard disk.
```

```
Please press <CR> when ready ...
```

14 Install the archived database from the backup diskette.

Note: Insert the archived database diskette into the floppy drive.

Select option "a" from the following menu.

```
Nortel Meridian-1 Software/Database/BOOTROM CDROM INSTALL Tool  
(Version xx)
```

```
=====
```

```
You will now perform the database installation.
```

```
Note: If you are installing the Database from a floppy disk,  
      please insert the correct disk now.
```

```
Please enter:
```

```
<CR> -> <a> Install CUSTOMER Database  
          (the customer database diskette must be in the  
          core 1 disk drive)  
      <b> Install DEFAULT Database.  
      <c> Transfer the previous system Database.  
      <e> Check the Database that exists on the hard disk.  
      <q> Quit.
```

```
Enter Choice>
```


Hungarian, Russian, Latvian, Turkish.

- * 4 - English, Spanish, French, Brazilian Portuguese, Japanese Katakana, German.
- * 5 - English, French, German, Spanish, Swedish, Italian, Norwegian, Portuguese, Finnish, Japanese Katakana.
- * 6 - English, Spanish, French, Brazilian Portuguese, Japanese Katakana, German.

Release 3 language groups

- 12** Select a PSDL file to install. The PSDL file contains the loadware for all downloadable cards in the system and loadware for M3900 series sets.

Select one of the six PSDL files

- <1> Global 10 Languages
- <2> Western Europe 10 Languages
- <3> Eastern Europe 10 Languages
- <4> North America 6 Languages
- <5> Spare Group A
- <6> North America 6 Languages (Duplicate of <4>)

The languages contained in each selection are outlined as follows:

- 1 – Global 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Japanese Katakana.
- 2 – Western Europe 10 Languages (Release 3) English, French, German, Spanish, Swedish, Italian, Norwegian, Brazilian Portuguese, Finnish, Danish.
- 3 – Eastern Europe 10 Languages (Release 3) English, French, German, Dutch, Polish, Czech, Hungarian, Russian, Latvian, Turkish.
- 4 – North America six Languages (Release 3) English, French, German, Spanish, Brazilian Portuguese, Japanese Katakana.
- 5 – Spare Group A.
- 6 – Spare Group B.

17 Enter "q" to leave the installation program.

```
Nortel Meridian-1 Software/Database/BOOTROM CDROM INSTALL Tool
(Version xx)
```

```
=====
                        I N S T A L L  M E N U
```

```
The Software Installation Tool will install or upgrade
Meridian-1 System Software, Database and the CP-BOOTROM.
```

```
You will be prompted throughout the installation and given the
opportunity to quit at any time.
```

```
Please enter:
```

```
<a>            To install Software, CP-BOOTROM.
<b>            To install Software, Database, CP-BOOTROM
<c>            To install Database only.
<d>            To install CP-BOOTROM only.
<t>            To go to the Tools menu.
<k>            To install Keycode only.
               For feature Expansion, use OVL143.
<p>            To install 3900 set Languages.
<q>            Quit.
```

```
Enter Choice>
```

18 Enter "y" to confirm Quit.

```
Nortel Meridian-1 Software/Database/BOOTROM CDROM INSTALL Tool
(Version xx)
```

```
=====
You selected to Quit. Please confirm.
```

```
Please enter:
```

```
<CR> ->    <y> - Yes, Quit.
             <n> - No, DO NOT Quit.
```

```
Enter Choice>
```

15 Perform the CP-BOOTROM installation.

Nortel Meridian-1 Software/Database/BOOTROM CDROM INSTALL Tool
(Version xx)

=====

You will now perform the CP-BOOTROM Installation.

Note: You will be overriding existing CP-BOOTROM on hard disk.

If you quit, BOOTROM will be left unchanged

Please enter:

<CR> -> <a> Continue with CP-BOOTROM install.

<q> Quit.

Enter Choice>

16 Review the Installation Status Summary

INSTALLATION STATUS SUMMARY			

Option	Choice	Status	Comment
SW: CD to disk	yes	ok	from 25xx to 25xx
Database	yes	ok	from 25xx to 25xx
CP-BOOTROM	yes	ok	
Please press <CR> when ready ...			

22 Check the software version.

Use LD 22 to print the software issue and release. At the prompt enter:

LD 22

REQ

ISS

Exit the program.

End of Procedure

Transfer call processing from Core/Net 0 to Core/Net 1



CAUTION

Service Interruption

The following procedure to transfer call processing causes service interruptions.

Time your procedure to minimize the effect of any breaks in service.

Procedure 10

Transfer call processing

1 From Core/Net 0, the active side, transfer call processing to Core/Net 1. At the prompt enter:

LD 135

Load the program.

CUTOVR

The inactive CP become active.

Call processing is now switched from Core/Net 0 to Core/Net 1.

End of Procedure

- 19** Choose either Reboot or Return to the Main Menu.

Note: Remove the database diskette from the disk drive before rebooting.

```
Nortel Meridian-1 Software/Database/BOOTROM CDROM INSTALL Tool
(Version xx)

=====
You selected to Quit the Software Installation Tool.
You may reboot the system or return to the Main Menu.
Before rebooting the system, remove Install diskette from the
floppy drive(s).

-----
DO NOT REBOOT USING BUTTON!!

-----
Please enter:
<CR> ->  <a> - Reboot the system.
          <m> - Return to the Main menu.
Enter Choice>
```

- 20** The system automatically performs a sysload and several messages appear on the system terminal. Wait for "DONE" and then the "INI" message to display before you continue.

Verify that the following message appears on the system terminal:

```
DATA CONVERSION
RELEASE 25.xx TO RELEASE 25.xx
```

- 21** Confirm that Release 25.xx software is installed and working on Core/Net 1:

LD 135	Load the program.
STAT CPU	Display the CPU status.
STAT CNI	Display the cCNI status.

- 2 Test Call Processing. This includes, but is not limited to the following:
 - a Check for dial tone.
 - b Make internal, external, and network calls.
 - c Check attendant console activity.
 - d Check DID trunks.
 - e Check any auxiliary processors.

Procedure 12

Enable system redundancy

- 1 From the active CPU, Core/Net 0, enable redundancy. At the prompt enter:

LD 135

JOIN

Synchronize the memory and drives.

End of Procedure

Test Core/Net 1

Test Call Processing. This includes, but is not limited to the following:

- 1 Check for dial tone.
- 2 Make internal, external, and network calls.
- 3 Check attendant console activity.
- 4 Check DID trunks.
- 5 Check any auxiliary processors.

Install the software on Core/Net 0

Start at "Install the software on Core/Net 1" on page 232 and repeat the procedures for Core/Net 0.

Continue with the following after completing "Check the software version." on page 244.

Enable system redundancy



CAUTION

Service Interruption

The following procedure to transfer call processing causes service interruptions.

Time your procedure to minimize the effect of any breaks in service.

Procedure 11

Transfer call processing

- 1 Transfer call processing from the active core 1 to the standby core 0.
At the prompt enter:

LD 135

CUTOVR

Transfer call processing from active core to standby core. This will cause a service interruption.

Note: The CUTOVR command is necessary to ensure that the second upgraded core is capable of call processing.

TEST IPB	Test Interprocessor Bus.
TEST LCD	Test LCDs.
TEST LED	Test LEDs

5 Clear the display and minor alarms on both Cores. At the prompt enter:

CDSP	Clear the displays on the Cores.
CMAJ	Clear all major alarms.
CMIN ALL	Clear all minor alarms.
****	Exit the program.

6 If desired, switch back to Core/Net 0. At the prompt enter:

LD 135	
SCPU	Switch to the inactive CPU, Core/Net 0

End of Procedure

Test Core/Net 1 and Core/Net 0

Procedure 13

Test both cores

From the active CPU, Core/Net 0, perform these tests:

- 1 Perform a redundancy sanity test using the following sequence. At the prompt enter:

LD 135

STAT CNI

Get the status of the cCNI cards.

STAT CPU

Get the status of the CPU and memory.

TEST CNI

Test each cCNI card (core, slot).

STAT SUTL

Get the status of the System Utility (main and transition) cards.

TEST SUTL

Test the System Utility (main and transition) cards.

TEST IPB

Test the Interprocessor Bus

TEST LCD

Test the LCDs.

TEST LED

Test the LEDs.

- 2 Test system redundancy. At the prompt enter:

LD 137

STAT

Get the status of the hard disks.

TEST RDUN

Test redundancy

DATA RDUN

Perform sector level checking on both hard disks

TEST CMDU

Perform hard and floppy disk test.

- 3 Switch to the inactive CPU. At the prompt enter:

LD 135

SCPU

Switch to the inactive CPU, Core/Net 1

- 4 Test Core/Net 1. At the prompt enter:

LD 135

STAT CNI

Get the status of cCNI (both main and transition) cards.

STAT CPU

Get the status of both Cores and redundancy.

TEST CNI

Test the cCNI (both main and transition) cards.

STAT SUTL

Get the status of the System Utility card.

TEST SUTL

Test System Utility card.

Perform a data dump

Procedure 14

Perform a data dump

- 1 At the prompt, enter
LD 43 Load the program
- 2 Insert a floppy disk into the cPCI MMDU to capture the backup.
- 3 When "EDD000" appears on the terminal, enter
EDD Begin the data dump
- 4 When "DATABASE BACKUP COMPLETE" appears on the terminal, enter



CAUTION

Loss of Data

If the data dump is not successful, do not continue; contact your technical support group. Correct any data dump problems before you continue.

Exit the program

The software backout procedure is complete.

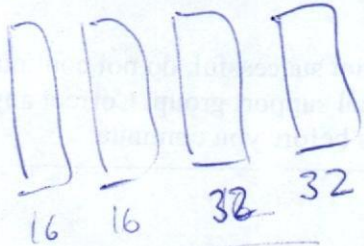
End of Procedure

64 flash { 112 Mb
48 & ram.

64 → 96 { 160mb.

16 / 16 16 -

x3 x6 x7 x8



(96)

